

## **AUTOMATIC REFERENCE-PRESSURE BALANCE METHOD**

### **Abstract**

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5 The present invention provides a system and method for calibrating pressure sensors associated with chambers in a processing facility. The system calibrates the pressure sensors while the chamber are open to each other, such as through an open slit valve or vacuum sealed door. Maintaining the pressure in the chambers relative to each other prevents a rush of gases, condensate or other foreign materials into an adjacent chamber that may occur when the pressure between the chambers is not equalized. This prevents contamination of the materials being processed, and eliminates the need for system shut-down to calibrate sensors. Also, since calibration occurs every time the slit  
10 valve is open, the calibration is real-time and does not allow the pressure differential between the chambers to become too great.

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